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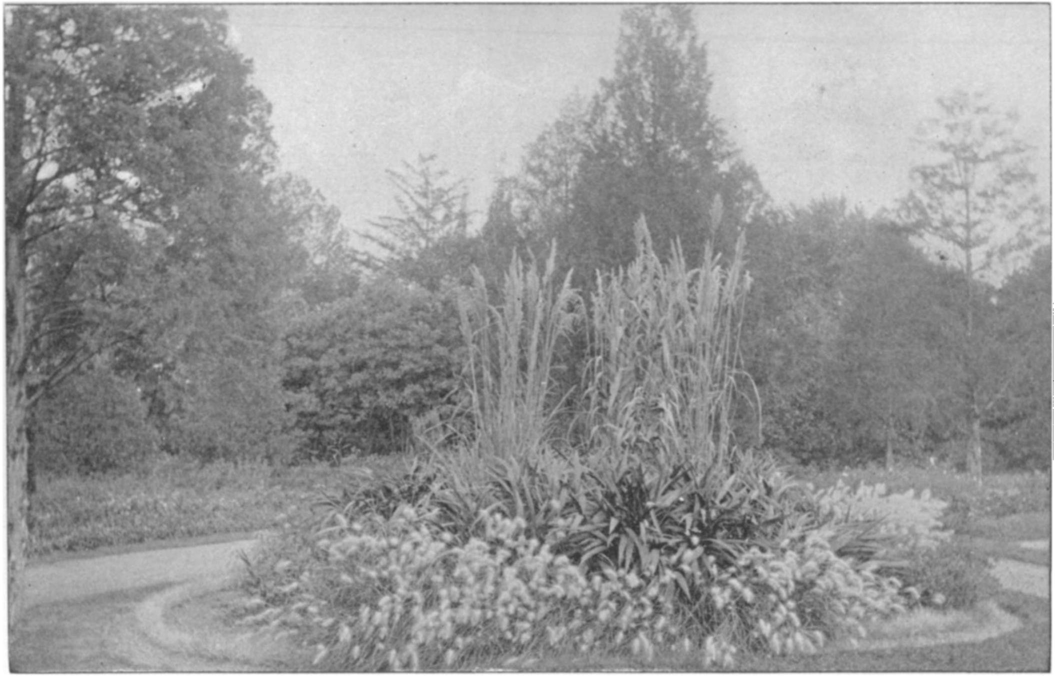
PROCEEDINGS OF THE FOURTH ANNUAL BANQUET,

GIVEN BY THE TRUSTEES OF THE GARDEN, MAY 19, 1893.

The fourth of the annual banquets to the Trustees of the Garden and their guests, provided for in the will of Henry Shaw, was given at the rooms of the Noonday Club of St. Louis, on the evening of the nineteenth of May, covers being laid for about seventy persons. The gathering of scientific men on this occasion was quite notable. Among those present were:—

Professor T. C. Chamberlin, University of Chicago.
M. Dwight Collier, New York City.
President H. T. Eddy, Rose Polytechnic Institute.
Professor G. L. Goodale, Harvard University.
Professor Asaph Hall, U. S. Naval Observatory.
President J. D. Hammond, Central College.
Professor A. S. Hitchcock, Kansas Agricultural College.
President R. H. Jesse, University of Missouri.
Dr. Geo. G. Kennedy, Boston, Mass.
Professor T. C. Mendenhall, Supt. U. S. Coast Survey.
Professor H. W. Norris, Iowa College.
Charles Robertson, Carlinville, Ill.
Professor W. B. Smith, University of Missouri.
Professor M. B. Thomas, Wabash College.
Professor L. M. Underwood, DePauw University.
Professor C. O. Whitman, University of Chicago.
Geo. D. Barnard,
A. D. Brown,
D. S. Brown,
W. M. Bryant,
Dr. C. O. Curtman,
Judge Daniel Dillon,
Dr. W. E. Fischel,
Hon. D. R. Francis,
Rev. J. H. George,
Judge Moses Hallett,
Jerome Hill,
E. A. Hitchcock,
Professor J. B. Johnson,
George E. Leighton,
I. H. Lionberger,
J. H. Maxon,
T. A. Meysenberg,
J. S. Moffitt,
Henry L. Morrill,
I. W. Morton,
Hon. J. W. Noble,
Capt. C. F. Palfrey,



A BED OF ORNAMENTAL GRASSES.

Charles Parsons,
Professor W. B. Potter,
Dr. T. F. Prewitt,
Dr. Enno Sander,
Henry C. Scott,
John Scullin,
Judge J. A. Seddon,
Geo. C. Smith,
I. M. Sturgeon,
Judge Samuel Treat,
Edwards Whittaker,
of St. Louis.

Gist Blair,
J. W. Branch,
Chancellor W. S. Chaplin,
George S. Drake,
Henry Hitchcock,
D. F. Kaime,
R. J. Lackland,
George A. Madill,
Professor H. S. Pritchett,
Bishop D. S. Tuttle,
Jas. E. Yeatman,
Of the Board of Trustees.
A. D. Cunningham,
Secretary of the
Board of Trustees.
William Trelease,
Director of the Garden.

At the conclusion of the dinner, the Chairman, Judge George A. Madill, introduced Professor George L. Goodale, of Harvard University, who spoke as follows: —

Mr. Chairman and Gentlemen: — Your very cordial greeting may be fairly interpreted as an expression of your good will to the ancient University which I have, for the moment, the honor to represent. Permit me to say that the Botanical Department of Harvard reciprocates this good will. Our interest in your affairs is natural and deep.

The three professors in the department of botany in Harvard can never forget the solicitude with which their associate and master, Asa Gray, watched the last steps in the transfer of the Shaw trust. When he had assured himself that the Shaw Garden was to be something more than a magnificent personal memorial, that it was to be the repository of the botanical treasures of his life-long friend, George Engelmann, and that it was to be something even more than this, namely, a center of scientific activity, his pleasure knew no bounds. And when a little later he was influential in securing as Director of the Shaw School of Botany, William Trelease, whose sound, practical judgment, whose indomitable energy and whose stimulating power of investigation he held in the highest esteem, he felt that the future of the Shaw foundation was secured.

Therefore to-night I can say to you frankly and without reserve that after two days spent in a very close and critical examination of the Garden and its attached establishments, and after having listened to the well-matured plans of the Director, I can have no hesitation about saying that we may congratulate you to the fullest extent upon the realization of the plans of Professor Gray, and upon the rapid and symmetrical development of what we may call the Shaw Institution.

It is often said that lookers-on see more of the game than the players. Now as a botanical looker-on, may I venture to express the pleasure I have felt in what I have seen, and to make a very few suggestions, which I trust may not seem, in any proper sense, officious or ill-timed? In the first place, you have here an establishment which occupies a unique position. I know of none like it in the world. It is not because its income is so vast, nor because its plans are very far-reaching, but it is because it is the gift of a private citizen to the world. You may have thought of the Shaw Garden as a St. Louis park, but the influence of this Garden is not limited to your city, it is not confined to your State, nor even to our nation. It progresses upon lines which Asa Gray and George Engelmann traced out, and which, held true by you, will make its power felt profoundly for good, throughout the world.

It seems to me not inappropriate to occupy the short time which has been assigned me in saying a few words in regard to the utilitarian aspects of the Shaw Bequest. We can understand one another better, if first of all we bring to our attention what Botany is. It is not an elementary school-girl's study; it is not merely a pastime for superannuated naturalists; but it is a science which endeavors to answer every reasonable question regarding plants; and it was in this sense that Henry Shaw, George Engelmann, and Asa Gray understood it.

Now what are the aspects in which we look at plants, and what questions can we ask? You will say at once that these questions fall into a few catagories. Suppose we had only one plant in the world, for instance the wheat plant. What questions could we ask in regard to that, — in regard to its wonderful organs, by which it brings from earth, and water, and air, all the materials from which it creates food? These organs possess a most marvelous adaptation of means to ends, and present to every thoughtful person objects of severe and yet attractive disciplinary study. Passing from this, let us see the plant in action. The plant is taking from the soil and water, and is drinking in from the air, one of the waste products of animal life and activity, and out of these is creating food. It is making that which stands alone between the animal world and starvation. If all plant activity were to cease upon this planet, starvation would stare us in the face, for all food is created first or last by plants. But plants are more than mere store-houses of food. They are treasuries of force. They hold within themselves energy which they have borrowed from the sunlight. This night we have before us resplendent filaments from which light of the coal period flashes back to us. These radiant threads are simply giving back to us the sunlight of that dim past. The relations of the plants of that past to our present involve questions of absorbing interest for the botanist to answer. To examine these questions he must have at command all the appliances of modern chemistry and modern physics; therefore let me venture to make as my first suggestion to the trustees of the Shaw Foundation that they must not limit their Director when he undertakes investigations in regard to what we call the laws of vegetable life.

These pressing and utilitarian questions must be answered somewhere. Where can they be approached better than here where you can place at the disposal of the Director and his students everything required for exhaustive research? The unfolding of the laws which govern all plant life is a condition antecedent to the highest use of plants. The world looks upon that task as largely in your hands.

Now suppose, instead of having a single plant, which we have taken as an illustration, we have many plants before us. Our first duty is to compare them and bring out the points of likeness and of difference; this is the work of Systematic Botany. It endeavors to discern the relationships of plants. The word relationship is no longer a mere figure of speech. It is to the science of to-day a definite expression of an existing fact. Looking around and behind us, we trace these affinities. The maples which shade the Shaw grounds to-day came from ancestors which were maples of the later geological periods. In like manner the chestnuts, the oaks, and the elms may be carried back into geologic times, and we find their traces in the strata lying somewhat west of where we are now gathered.

Is there a grander field of thought than that on which the past and present meet? I know I am right when I say that you will not hamper your Director when he sets students at work investigating questions in regard to these relationships. Some of these questions belong to what has been unhappily called "pure" science. It is to be regretted that the word pure was ever used in this connection, because it seems to indicate that there is something contaminating in the touch of that which is its antithesis, ordinarily termed applied science. The fact is, all science is sooner or later applied, and of no science is this more exactly true than of Botany, which has innumerable applications to all phases of human life.

I pass now to one or two of the practical applications of our science. I ask you first, where can one better study or set students about studying an improvement in our food plants than right here? If you look for a moment you will remember that by cultivation, by selection, by hybridizing, by the thousand appliances which man has within his grasp to-day, we can guide plants in almost any direction we please. The laws of heredity, the laws of variety are becoming, thanks to the students of Biology, better understood day by day, and they can be utilized. Let the

Director never be cramped for money or men for tasks like this. It belongs to the highest class of applied scientific work.

To show you that others feel as I do about your magnificent establishment, let me tell you that there is a citizen of Massachusetts whose work in the improvement of plants has been largely done in that state and the State of New York. To aid him in his researches, he has accumulated a very large collection of books antedating Linnaeus, by whom this sort of work was done about the middle of the last century. Anterior to the time of Linnaeus, many great botanists had written upon plants, had recorded their impressions and made their drawings, so that we find in the record, imperfect as it is, descriptions of these varieties which Linnaeus and others have regarded as improved. To collect and study these books has been his passion; to get these books together in order to obtain the earliest possible views regarding all the varieties. Having brought these all together at great cost and labor, he sought a place for their preservation. Where could there be a better place to keep them than in the noble library of the Massachusetts Horticultural Society, or in the library of Harvard University? Yet this citizen of Massachusetts sends them where? To the Shaw School of Botany!

Although I may perhaps be blamed for saying it, I think he did right; but, if your Director is embarrassed in any way in carrying out the class of studies which this citizen wants to have carried out, I shall think that this library has been sent to the wrong place. I do not think, however, your Director will be cramped in any way. I have no question that some of the students under your Director will lead the study of plants along new lines, and in that way make substantial contributions to this most important branch of applied science.

In the next place, let me ask, where can timber trees be better studied than here? Where can fibres and tans and a hundred practical things be investigated to better advantage than here? Where can the improvement of all classes of useful plants be better undertaken than here, in the State of Missouri? You will find, if you glance over the whole field, that you have simply to use the appliances which the Shaw income can place within the grasp of your Director, to add largely to the sum of human knowledge and advance the soundest interests of the race.

Therefore I insist upon it, gentlemen, that this Institution occupies a unique position. It is attached firmly to a sound University that is sure to give it good educational guidance, and to insure the best utilization of its discipline. The Chancellor of your University, a practical man and successful educator, is bound to make every department efficient, and in this prominent, important department he has an excellent coadjutor. The Director is a practical man. There will be no wild schemes started or carried out under him. His plans are and will be well matured. I urge you to co-operate with him in every way.

You must permit me now to say that I make these suggestions, not on account of any complaint which he has made. On the contrary, he has told me that he has been left reasonably free in all directions, but I know there may come a time in the administration of every trust when it may seem wise to restrict expenditure in many ways, and sharply economize. I think in all such matters and at all times, the one who has these interests most constantly before him, and who has most at stake, namely, the Director, to whom you intrust the administration, should have much to say.

I am afraid you may think from the tenor of my remarks, that I have ignored the interesting and important relations which exist between the Shaw establishment and the St. Louis public. I should like therefore to express my hearty appreciation of the wisdom and farsightedness shown by Henry Shaw in the organization of this Garden, and the founding of Tower Grove Park, as a place for the public. In these days when there is such a mad rush from the country to the city, each municipality ought to possess extensive open fields, not merely as breathing-places for the poor, but to afford to the exiles from the country, fresh glimpses of the beautiful serenity and charm of the country world which they have voluntarily abandoned. It was the noblest sort of socialism which led Henry Shaw to present these gifts of fresh air and green leaves to his fellow citizens of St. Louis.

Now I close as I began, by tendering the heartiest congratulations on the part of my associates and myself, on account of this rapid development, which has not been too rapid, and on account of this symmetrical development, which has indeed kept everything well balanced. We offer in a spirit of pride for American science our sincerest congratulations for the present and the past, and our best wishes for the future.

It is more than a quarter of a century since I paid my last visit to St. Louis. The complete transformation which has taken place within your city limits during that time, renders it impossible to predict what any visitor to your city will see twenty-five years from now. The cordiality of your present reception makes me look forward with pleasurable anticipations to my next visit then.

Professor Goodale was followed by Professor Asaph Hall, of the Naval Observatory; General J. W. Noble, late Secretary of the Interior; Professor T. C. Chamberlin, head of the Geological Department of the University of Chicago, and late President of the University of Wisconsin; Professor T. C. Mendenhall, Superintendent of the United States Coast Survey; Dr. C. O. Whitman, head of the Biological Department of the University of Chicago and Director of the Marine Biological Labaratory at Wood's Holl; Dr. H. T. Eddy, President of the Rose Polytechnic Institute, and Chancellor W. S. Chaplin, of Washington University, who made short speeches, appropriate to the occasion.